Amendments to the Claims

1.(Currently amended) A device for adjusting the gram force applied to a thread in knitting machines, comprising a control unit that is adapted to drive power supply means of a motor for unwinding a thread to be fed to the knitting machine, gram force sensing means adapted to detect the gram force applied to said thread and to emit a gram force signal, comparator means adapted to compare said gram force signal with a reference signal in order to obtain a gram force error signal, wherein said control unit comprises means adapted to emit a signal for driving said power supply means of the motor according only to a pair of signals, that is the gram force error signal of said thread and ~~to~~ a signal that is the derivative with respect to time of the gram force signal emitted by said gram force sensor means.

2.(Currently amended) The device according to claim 1, wherein said control unit comprises a PID controller, said control unit being ~~which is~~ adapted to receive in input said gram force error signal together with said derivative signal with respect to time of the gram force signal.

3.(Previously presented) The device according to claim 1, wherein said means adapted to emit a signal for driving said power supply means of the motor are adapted to detect the sign of said derivative.

4.(Original) The device according to claim 1, wherein said controller is adapted to drive said motor power supply means so as to supply said motor in order to maintain a constant value of said gram force applied to the thread.

5.(Currently amended) A method for adjusting gram force applied to a thread of a knitting machine, comprising the steps of:
adjusting the gram force applied to said thread according to a reference

gram force and equalizing tension discontinuities of said thread on the basis of a prediction of the behavior of said thread, said prediction being ~~only~~ based on a derivative with respect to time of a gram force signal and at least one threshold that is set in relation to a gram force error signal obtained by comparing a gram force value detected by gram force sensing means with a reference gram force value.

6.(Original) The method according to claim 5, wherein said gram force error signal, together with said time derivative signal of the gram force applied to said thread, are sent to a controller that is adapted to drive power supply means of said motor in order to keep the tension of said thread constant.

7.(Original) The method according to claim 5, wherein said time derivative signal of the gram force applied to said thread is evaluated as regards the sign of said derivative.